



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1480  
Alexandria, Virginia 22303-1480  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILED DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,299	04/19/2004	Szang-hi Lee	1349.1357	9802
21171 7590 11/23/2009 STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005				
EXAMINER SARPONG, AKWASI				
ART UNIT 2625 PAPER NUMBER				
MAIL DATE 11/23/2009 DELIVERY MODE PAPER				

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

Application No.	Applicant(s)	
10/826,299	LEE, SUNG-HI	
Examiner	Art Unit	
AKWASI M. SARPONG	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date: 06/13/2008 and 04/19/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claim1-12 and 14-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Chapin (2003/0231328).**

Chapin discloses a printing apparatus (**Fig. 1 shows computer 110, Network 120 and Printers (130-134)**) to perform a printing operation by driving hardware provided thereto according to a printing command received from a user, (**Section 0014, - thus a user issues a command for printing from computer 110 to be printed in one of the printers 130-134**) comprising:

a firmware unit (**Portion of the PC that stores the multiple printer driver- please see Fig. 1 El. 100 and section 0020 lines 1-6**) to store function information of a plurality of printing apparatus\_models, (**Section 0019, lines 4-6- thus multiple printer driver installed on the PC works on all the different printers connected**) supported by a common firmware, (**multiple driver is configured to operate several different printers-please see section 0019, lines 4-6**) of the printing apparatus and control the printing apparatus\_to selectively perform the function of one of the plurality of printing apparatus models (**Section 0019, lines 11-15- thus the multiple printer driver can operate just Phaser 6200 or 4400 and therefore it can selectively perform function of either of these printers**) which corresponds to a model index

designated by a manufacturer as the printing apparatus is initialized, **(Phaser 6200 and 4400 will be the model designated by Xerox -please see section 0019 lines 11-15)** and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models. **(Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400)**

**Claim 2**, Chapin discloses wherein the firmware unit comprises:  
a storage unit **(Portion of EI 100 that stores multiple printer driver-please see that Fig. 1 clearly shows that the multiple printer driver is stored in EI 100 in the PC)** to store the function information of the plurality of printing apparatus **(Fig. 1 clearly shows that the multiple printer driver is stored in EI 100 in the PC)** models therein  
a model index processing unit **(Controller 20 shown in fig. 2)** to store a model index designation command **(Section 0016, lines 1-3- thus the controller analyzer sends the print job and user-specified print properties to the communication port 30)** received from outside the firmware unit, extract from the storage unit the function information which corresponds to the model index designated by the model index designation command upon the initialization of the printing apparatus, **(Section 0015, lines 1-5- thus the controller determines which of the different models of printer best -equipped to perform the print job in accordance with the command designated and therefore the type of phaser information corresponds to the print command issue by the user)** and output the extracted function information **(Section**

**0016, lines 1-4- thus the print job and user-specified print properties are send to the communications port 30) and**

a firmware driving unit to control the hardware to receive the function information and perform a corresponding function. **(Section 0017, lines 4-8- thus the translator 40 controls the drivers to convert the send print job together with the print parameters and preferences to corresponds to the commands send by the user).**

**Claim 3**, Chapin discloses wherein the firmware unit further comprises a data receiving unit to receive data from outside the firmware unit, **(Section 0016, lines 13-14-the portion of Controller 20 that receives the information on how to print the job)** and transmit the model index designation command to the model index processing unit **(Controller 20 receives the print command together with the print specified information-please see section 0016 lines 12-14)** in response to the model index designation command being in the received data. **(Section 0016 lines 1-4- thus the controller 20 converts the received print data to correspond to the specified print information)**

a data processing unit **(translator 40 shown in Fig. 2)** to receive the data excluding the model index designation command from the data receiving unit, and convert the data into corresponding printer language **(Section 0017, lines 4-8- thus the translator converts the print data into a specified format)** and

a data printing unit to control the hardware to output the converted data onto a printing medium. **(Printers 130-134- prints the converted image data).**

**Claim 4**, Chapin discloses further comprising a developing unit and a fusing unit to output the converted data onto the printing medium, wherein the developing unit and the fusing unit are controlled by the data printing unit. **(Section 0021, lines 23-24- thus the printer finish printing and therefore has a developing unit and fusing unit that develops the image onto the medium for printing)**

**Claim 5**, Chapin discloses wherein the model index designation command is transmitted along with initialization files through a printer interface during the manufacturing of the printing apparatus, so that the model index designation command is processed upon the initialization of the printing apparatus. **(It is Inherit at a printer's initialization, the model index shows up on the screen in most times in the case of Chapin will be Phaser 4400, 6200 and 7300 as clearly shown in Section 0019 lines 11-15)**

**Claim 6**, Chapin discloses wherein the model index designation command is transmitted in a separate command file that is transmitted through a printer interface to be processed by the firmware unit. **(Section 0020, lines 2-8- thus each of the printers model index such as Xerox Phaser 4400 is separated from each other and therefore the multiple drivers controls each separately)**

**Claim 7**, Chapin discloses a method of supporting a plurality of models of a printing apparatus by a common firmware, **(multiple driver is configured to operate several different printers-please see section 0019, lines 4-6)** the method comprising: confirming a model index designation command which designates a model index corresponding to one of the plurality of printing apparatus models, **(Section 0019, lines 11-15- thus the multiple printer driver can operate just Phaser 6200 or 4400 and therefore it can selectively perform function of either of these printers)** during a manufacturing operation

extracting function information corresponding to the one of the plurality of printing apparatus models which is designated by the model index designation command **(Section 0020- thus since multiple printer Drivers controls more than one models of the printers such as Phaser 4400 and 6400, the software has to extract the exact model that the print job is been sent)** confirming a function of the designated model using the function information and performing the function, **(Section 0020, lines 2-8- the selected printer is supported by the program and therefore it is confirmed that the model corresponds to the program)** and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models. **(Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400)**

**Claim 8**, Chapin discloses further comprising inputting the model index designation command and storing the command in an initialization file and confirming

the model index designation command by executing the initialization file. (Section 0020, lines 2-8- the selected printer is supported by the program and therefore it is confirmed that the model corresponds to the program)

**Claim 9**, Chapin discloses further comprising writing a separate file which stores therein the model index designation command storing the file in the printing apparatus through a printer interface; and confirming the model index designation command by executing the file. (Section 0020, lines 2-8- thus each of the printers model index such as Xerox Phaser 4400 is separated from each other and therefore the multiple drivers controls each separately)

**Claim 10**, Chapin discloses wherein the function of a basic model that is previously set is performed in response to there being no function information corresponding to the designated model index. (Section 0020-lines 2-8- thus the user has to sent a specific information for a specified model such as 7400 or 6400 which will call for a special model index and therefore the basic program call for no information)

**Claim 11**, Chapin discloses a firmware unit (Portion of the PC that stores the multiple printer driver-please see Fig. 1 El. 100 and section 0020 lines 1-6) of a printing apparatus to control the printing apparatus, wherein the firmware unit stores function information of a plurality of printing apparatus models, supported by a common



firmware, **(multiple driver is configured to operate several different printers-please see section 0019, lines 4-6)** of the printing apparatus, and controls the printing apparatus according to the function information corresponding to the printing apparatus set at a time of manufacture **(Phaser 6200 and 4400 will be the model designated by Xerox -please see section 0019 lines 11-15)** and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models. **(Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400)**

**Claim 12**, Chapin discloses a firmware unit **(Portion of the PC that stores the multiple printer driver-please see Fig. 1 El. 100 and section 0020 lines 1-6)** to control a printing apparatus, wherein the firmware unit stores function information of a plurality of models of the printing apparatus, **(multiple driver is configured to operate several different printers-please see section 0019, lines 4-6)** and controls the printing apparatus according to the function information corresponding to the printing apparatus, with a storage unit to store the function information of the plurality of models, supported by a common firmware, of the printing apparatus, **(Phaser 6200 and 4400 will be the model designated by Xerox -please see section 0019 lines 11-15)** further comprising a model index processing unit **(Controller 20 shown in fig. 2)** to store a model index designation command **(Section 0016, lines 1-3- thus the controller analyzer sends the print job and user-specified print properties to the communication port 30)** received from outside the firmware unit by a manufacturer,

extract the function information corresponding to a model index designated by the model index designation command, and output the extracted information and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models. **(Section 0017, lines 4-8- thus the translator 40 controls the drivers to convert the send print job together with the print parameters and preferences to corresponds to the commands send by the user).**

**Claim 13, (Cancelled).**

**Claim 14, Chapin discloses further comprising a data receiving unit**  
data receiving unit to receive data from outside the firmware unit, **(Section 0016, lines 13-14-the portion of Controller 20 that receives the information on how to print the job)** and transmit the model index designation command to the model index processing unit **(Controller 20 receives the print command together with the print specified information-please see section 0016 lines 12-14)** in response to the model index designation command being in the received data. **(Section 0016 lines 1-4- thus the controller 20 converts the received print data to correspond to the specified print information)**

**Claim 15, Chapin discloses further comprising a data processing unit (translator 40 shown in Fig. 2) to receive the data excluding the model index designation command from the data receiving unit and convert the data into corresponding printer language. (Section 0017, lines 4-8- thus the translator converts the print data into a specified format)**

**Claim 16**, Chapin discloses further comprising a data printing unit to control hardware of the printing apparatus to output the converted data onto a printing medium. **(Printers 130-134- prints the converted image data).**

**Claim 17**, Chapin discloses further comprising a firmware driving unit to control hardware of the printing apparatus to receive the function information and perform a corresponding function. **(Section 0020, lines 2-8- the selected printer is supported by the program and therefore it is confirmed that the model corresponds to the program).**

**Claim 18**, Chapin discloses a method of controlling a printing apparatus, the method comprising storing function information of a plurality of printing apparatus models, supported by a common firmware, **(multiple driver is configured to operate several different printers-please see section 0019, lines 4-6)** of the printing apparatus in the printing apparatus, designating a model from among the plurality of models at a time of manufacture, **(Phaser 6200 and 4400 will be the model designated by Xerox -please see section 0019 lines 11-15)** and controlling the printing apparatus according to the function information corresponding to the printing apparatus **(Section 0019, lines 11-15- thus the multiple printer driver can operate just Phaser 6200 or 4400 and therefore it can selectively perform function of either of these printers)** and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models. **(Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400)**

**Claim 19**, Chapin discloses a storage comprising common firmware to control a plurality of models of a printing apparatus, **(Portion of the PC that stores the multiple printer driver-please see Fig. 1 El. 100 and section 0020 lines 1-6)** wherein the common firmware installed in the plurality of models at a time of manufacture of the printing apparatus includes function information of each of the plurality of models, **(Section 0019, lines 11-15- thus the multiple printer driver can operate just Phaser 6200 or 4400 and therefore it can selectively perform function of either of these printers)** and controls each of the plurality of models according to function information corresponding to each of the respective models, **(Phaser 6200 and 4400 will be the model designated by Xerox -please see section 0019 lines 11-15)** and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models. **(Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400).**

**Claim 20**, Chapin discloses a storage comprising common firmware to control a plurality of models of a printing apparatus, the common firmware comprising **(multiple driver is configured to operate several different printers-please see section 0019, lines 4-6)** a plurality of model index functions **(Model such as Phaser 6200, 4400 and 7300)** wherein the common firmware controls the models of the printing apparatus according to a respective one of the model index functions designated in response to a model index command before being initialized by a user, **(Section 0019, lines 11-15- thus each of the Xerox Phaser 4400 and 7300 has a special functions that are peculiar to it)** and wherein the common firmware is a multi-model firmware that can be

used in the plurality of printing apparatus models. (Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400)

**Claim 21**, Chapin discloses a method of controlling a printing apparatus, the method comprising storing function information of a plurality of printing apparatus models, supported by a common firmware, (multiple driver is configured to operate several different printers-please see section 0019, lines 4-6) of the printing apparatus in the printing apparatus, designating a model from among the plurality of models at a time of manufacture, (Phaser 6200 and 4400 will be the model designated by Xerox -please see section 0019 lines 11-15) and controlling the printing apparatus according to the function information corresponding to the printing apparatus, and wherein the common firmware is a multi-model firmware that can be used in the plurality of printing apparatus models. (Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400)

### ***Response to Arguments***

1. Applicant's arguments filed 07/14/2009 have been fully considered but they are not persuasive..

**Regarding independent Claims 1, 7, 11, 12, 18 and 21**, applicant argues that the cited references fails to disclose a common firmware that is a multi-model firmware that can be used in the plurality of printing apparatus models.

In reply, Examiner respectfully disagrees because Chapin clearly disclose a common firmware that is a multi-model firmware that can be used in the plurality of printing apparatus models. **(Section 0019, lines 11-15- thus the multiple printer driver operates Xerox Phaser 6200 and 4400).**

**Regarding Claim 2**, applicant argues that the cited reference fails to disclose a model index processing unit to store a model index designation command received from outside the firmware unit, extract from the storage unit the function information which corresponds to the model index designated by the model index designation command upon the initialization of the printing apparatus, and output the extracted function information.

**In reply**, examiner respectfully disagree because Chapin discloses a model index processing unit **(Controller 20 shown in fig. 2)** to store a model index designation command **(Section 0016, lines 1-3- thus the controller analyzer sends the print job and user-specified print properties to the communication port 30)** received from outside the firmware unit, extract from the storage unit the function information which corresponds to the model index designated by the model index designation command upon the initialization of the printing apparatus, **(Section 0015, lines 1-5- thus the controller determines which of the different models of printer best –equipped to perform the print job in accordance with the command**

**designated and therefore the type of phaser information corresponds to the print command issue by the user) and output the extracted function information (Section 0016, lines 1-4- thus the print job and user-specified print properties are send to the communications port 30).**

### ***Conclusion***

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AKWASI M. SARPONG whose telephone number is (571)270-3438. The examiner can normally be reached on Monday-Friday 8:00am-5:00pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/  
Supervisory Patent Examiner, Art Unit 2625

AMS 11/12/2009